

REMARKS

The Office Action of April 30, 2009 has been received and carefully reviewed. It is submitted that, by this Amendment, all bases of rejection are traversed and overcome. Upon entry of this Amendment, claims 18, 19, 21-36, and 38-43 remain in the application. Claim 37 has been cancelled herein, and claims 29-36 have been withdrawn. Reconsideration of the claims is respectfully requested.

Claims 18, 19, 21-25 and 38-41 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The Examiner states that the phrases "...valve is opened to create positive pressure throughout the reservoir" and "the positive pressure for the second maintenance mode being other than a pressure actuated by a piezo or thermal resistive element" were not described in the specification to reasonably convey that the inventors had possession of the claimed invention.

Regarding the phrase, "...valve is opened to create positive pressure throughout the reservoir, the fluid conduit and the ejector head", the Applicants respectfully disagree with the Examiner. The Examiner's attention is directed to page 6, line 29 through page 7, line 9 of the Applicants' specification as filed. This passage states that the relatively higher (positive) pressure of the maintenance mode (when compared to the operating mode) is accomplished by pressurizing the fluid delivery system by **opening the valve** and disabling resistor firing. As such, the specification as filed clearly supports the claimed recitation that "...valve is opened to create positive pressure throughout the reservoir, the fluid conduit and the ejector head."

Regarding the phrase "the positive pressure for the second maintenance mode being other than a pressure actuated by a piezo or thermal resistive element", it is submitted that this phrase has been deleted from the independent claims and thus the instant rejection under 35 U.S.C. § 112, first paragraph is rendered moot. While the Applicants do not acquiesce to the instant rejection, the Applicants have revised the independent claims to clarify how the positive pressure is obtained,

namely that the positive pressure for the second maintenance mode is generated by opening the valve and disabling the at least one resistor. As mentioned above, this recitation is clearly supported by the application as filed, at least at page 6, line 29 through page 7, line 9.

For all the reasons set forth hereinabove, it is submitted that the 35 U.S.C. § 112, first paragraph rejections of claims 18, 19, 21-25 and 38-41 are erroneously based and/or have been traversed and overcome. As such, withdrawal of such rejections is respectfully requested.

Claims 18, 19, 21, 26-28, 38, 42 and 43 stand rejected under 35 U.S.C § 102(e) as being anticipated by Beavis et al. (U.S. Patent No. 7,146,977). The Examiner states that Beavis teaches all of the elements as defined in Applicants' independent claims 18, 26, 38 and 42.

While the Applicants do not acquiesce to the instant 35 U.S.C § 102(e) rejection, in order to expedite prosecution, the independent claims have been amended herein to recite, in some form, "an ejector head including at least one selectively disabled resistor" and that "in the second maintenance mode of the fluid delivery unit, the at least one resistor of the ejector head is disabled and the valve is opened to create positive pressure throughout the reservoir, the fluid conduit and the ejector head." Support for such recitations may be found throughout the application as filed, at least at page 6, line 29 through page 7, line 9.

In sharp contrast to the Applicants' selectively disabled resistor(s), Beavis teaches an atomizer. An ejector head including a resistor is not the same as the atomizer described by Beavis. Beavis provides one example of the atomizer, namely an electro-hydrodynamic atomizer (see Col. 4, line 30), which usually involves application of a DC voltage to electrodes or induction charging by a DC high voltage applied downstream of the atomization nozzles to achieve atomization. One skilled in the art would recognize that electro-hydrodynamic atomization (EHDA) electrically charges a liquid by applying high potential through a capillary-like emitter. EHDA dispersion is from Coulomb repulsion. In sharp contrast, Applicants' invention as

recited in the pending claims does not recite electrically charging the fluid delivered - rather, Applicants' claims recite a resistor, that heats the fluid with a resistive heating element (resistor.) There is no teaching or suggestion that the atomizer of Beavis includes the resistor recited by the Applicants (which heats the fluid to generate a vapor bubble which expands to achieve aerosolization by propelling the fluid through an orifice (see page 4, lines 19-29 of the Applicants' specification as filed)).

Furthermore, Beavis does not teach or suggest that his atomizer includes any selectively disabled parts, let alone a selectively disabled resistor. In discussing the use of the air valve, Beavis states that the air from the air source pushes the volume of fluid in the target region toward the atomizer. Since Beavis does not specifically mention that the atomizer is disabled at this point, it is submitted that one skilled in the art would understand that such fluid is atomized as it passes through the atomizer. This is in sharp contrast to the Applicants' devices as defined in the pending claims, because the disabled resistor(s) allow the fluid to purge through the drop ejector, without being atomized.

Since Beavis's atomizer does not include a selectively disabled resistor, the Applicants submit that Beavis does not anticipate or otherwise render obvious the Applicants' invention as defined in the pending claims. For all the reasons stated above, it is submitted that Applicants' invention as defined in independent claims 18, 26, 38 and 42, and in those claims depending ultimately therefrom, is not anticipated, taught or rendered obvious by the cited reference(s), either alone or in combination, and patentably defines over the art of record.

Claims 22-24 stand rejected under 35 U.S.C § 103(a) as being unpatentable over Beavis in view of Poole (U.S. Patent No. 6,158,431).

The Applicants reiterate the arguments set forth hereinabove and further submit that Poole does not supply the deficiencies of Beavis outlined above. In particular, Poole teaches a piezoelectric driver for oscillating a nozzle. This is in sharp contrast to the Applicants' recited resistor, which is used to generate heat.

For all the reasons stated above, it is submitted that Applicants' invention as defined in independent claims 18, 26, 38 and 42, and in those claims depending ultimately therefrom, is not anticipated, taught or rendered obvious by the cited references, either alone or in combination, and patentably defines over the art of record.

Claims 25 and 39-41 stand rejected under 35 U.S.C § 103(a) as being unpatentable over Beavis in view of Koerner et al. (U.S. Patent Application Publication No. 2004/0195352).

The Applicants reiterate the arguments set forth hereinabove and further submit that Koerner does not supply the deficiencies of Beavis outlined above. Koerner discloses a microdosing device that has both an atomizing unit for delivering a dosing of a liquid quantity of medication and a drying function unit (see Koerner, Figure 1). The drying function unit rids the device of liquid residues left over from dosing by the atomizing unit. The drying function unit operates by piezoelectric vibration, heat, or other means to rid the device of liquid residue. Each possible form of the drying function unit is a separate unit from the atomizing unit. In the embodiments specifically described, the drying function unit is either a piezoelectric actuator or a heater.

At most, the Applicants submit that the combination of the references results in a device including an atomizer (taught in both references) and a drying unit (as taught by Koerner).

Applicants' recited ejector head includes a selectively disabled resistor, which is not taught or suggested by the references. Furthermore, the Applicants' maintenance mode is achieved by opening the valve and disabling the at least one resistor. This is in sharp contrast to the teachings of Koerner, which specifically utilize an actuator or a heater to rid the device of residue. As such, when Koerner does include a heater, such heater is activated during cleaning/maintenance. This is the opposite of the Applicants' claims, which includes a **disabled** resistor during

maintenance mode. As such, the combination of Beavis and Koerner does not teach or suggest the Applicants' invention as defined in the pending claims.

For all the reasons stated above, it is submitted that Applicants' invention as defined in independent claims 18, 26, 38 and 42, and in those claims depending ultimately therefrom, is not anticipated, taught or rendered obvious by the cited reference(s), either alone or in combination, and patentably defines over the art of record.

If claim 18 is found to contain allowable subject matter, it is requested that the Examiner also consider claims 29-36 for rejoinder. Claims 29-36 are method of using claims which require all of the limitations of the medication delivery device as defined in claim 18. Thus, under the requirements of MPEP §821.04(b), if claim 18 is found to be allowable, it is submitted that claims 29-36 are eligible for rejoinder, and the previous restriction requirement of claims 29-36 should be withdrawn.

It is submitted that the absence of a reply to a specific rejection, issue or comment in the instant Office Action does not signify agreement with or concession of that rejection, issue or comment. Finally, nothing in this amendment/response should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this amendment/response, and the amendment of any claim does not signify concession of unpatentability of the claim prior to its amendment.

In summary, claims 18, 19, 21-36, and 38-43 remain in the application. It is submitted that, through this Amendment, Applicants' invention as set forth in these claims is now in a condition suitable for allowance.

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Further and favorable consideration is requested. If the Examiner believes it would expedite prosecution of the above-identified application, the Examiner is cordially invited to contact Applicants' Attorney at the below-listed telephone number.

Respectfully submitted,

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